MASS. HS 30.37/2: 2001/ Apr

UMASS/AMHERST
312066 0362 8839 2

Weapon Injury Data

Notes from the Weapon-Related Injury Surveillance System (WRISS) April 2001

1994-1999 Weapon-Related Injuries

This bulletin provides a brief overview of gunshot wound (GSW) and sharp instrument wound (SIW) data collected by the Massachusetts Department of Public Health's Weapon-Related Injury Surveillance System (WRISS) on injuries treated by all hospital emergency departments during 1999.

Table 1 summarizes injuries reported to WRISS over a six-year period by injury intent (e.g., violence, accidental) and the type of weapon involved.

The overall number of GSWs and SIWs reported to WRISS, among Massachusetts residents, increased 3% statewide from 1,773 in 1998 to 1,820 in 1999. The overall injury rate remained about the same; 28.5/100,000 in 1998 and 28.9/100,000 in 1999.

Violence-related sharp instrument wounds declined 34% from 1994 in which 1,885 cases were reported, to 1998 in which 1,253 cases were reported. A slight increase was noted in 1999 (n=1,287).

1999 also marked an increase in violence-related firearm injuries. Cases increased statewide by 16.5% from 1998 to 1999 (291 and 339 respectively). The injury rate increased from 4.7/100,000 in 1998 to 5.4/100,000 in 1999.

However, accidental gunshot wounds, which remained relatively stable from 1994 through 1997, dropped by 41% from 1997 to 1999 (158 and 94 respectively). The accidental gun-related injury rate decreased during this time from 2.6/100,000 to 1.5/100,000.

Table 2 provides the number of violence-related GSWs and SIWs to Massachusetts residents reported in 1999 among cities, towns, and specific population groupings.

Table 1. Number of Injuries Treated by Massachusetts Emergency Departments for Gunshot and Sharp Instrument Wounds, 1994-1999

	Number of Cases Reported by Year						Rates*
	1994	1995	1996	1997	1998	1999	1999
Massachusetts Residents:							
Violent Sharp-Related Injuries	1885	1684	1553	1353	1253	1287	20.5
Violent Gun-Related Injuries:	662	526	393	312	318	375	6.0
Firearms	625	503	337	270	291	339	5.4
Nonpowder guns	37	20	43	25	20	30	0.5
Unknown gun type	0	3	13	17	7	6	--
Total Violent-Related Cases:	*2547*	*2210*	*1946*	*1665*	*1571*	*1662*	*26.4*
Accidental Gun-Related Injuries:	163	155	166	158	117	94	1.5
Firearms	69	65	55	56	44	25	0.4
Nonpowder guns	92	86	108	96	71	64	1.0
Unknown gun type	2	4	3	6	2	5	--
Self-Inflicted Gun-Related Injuries:	47	47	35	26	31	26	0.4
Firearms	44	43	32	22	30	24	0.4
Nonpowder guns	3	3	3	3	1	1	--
Unknown gun type	0	1	0	1	0	1	--
Unspecified Gun-Related Injuries:	108	100	72	48	54	38	0.6
Firearms	82	68	53	30	42	25	0.4
Nonpowder guns	26	32	17	16	11	13	--
Unknown gun type	0	0	2	2	1	0	--
Total Other Cases:	*318*	*302*	*273*	*232*	*202*	*158*	*2.5*
Total Massachusetts Residents	**2865**	**2512**	**2219**	**1897**	**1773**	**1820**	**28.9**
Total Out-of-State Residents	**63**	**53**	**53**	**50**	**43**	**37**	
Total Cases	***2928***	***2565***	***2272***	***1947***	***1816***	***1857***	

*Rate=number of cases per 100,000 residents.

Correction: Please note that these data differ from those reported in our previous publication (*Weapon Injury Data*, March 2000) as follows: **Total Cases** for 1998 should read 1816 (not 1861 as previously reported). Among violent gun-related injuries, 'firearm' and 'unknown gun type' injuries will differ by 1 to 2 cases per year due to coding changes. The overall total of violent-related gunshot wounds is unchanged.

Notes

Based on record reviews conducted from 1994-96, hospitals report approximately 70-80% of reportable cases; all gun-related injuries regardless of intent, and sharp instrument injuries violently inflicted by another person. Preliminary hospital audits conducted in 2000 indicate reporting levels to be similar.

All reportable injuries treated in the emergency department are included in the system. Pre-hospital deaths are not captured, but are included in annual vital statistics.

Numbers and rates provided here are not adjusted for hospital under-reporting. Rates are based on 1998 population data estimates developed by the Massachusetts Institute for Social and Economic Research.

Table 2. Violence-Related Gunshot and Sharp Instrument Wounds

1999 Cases Reported by Massachusetts Hospital Emergency Departments to the Mass. Dept. of Public Health

Patient's City	'98 Population	1999 Cases	'99 Rate/ 100,000
Group 1: Towns over 175,000 population:			
Boston	563,876	482	85.5
Group 1 Total:			
	563,876	*482*	*85.5*
Group 2: Towns 75,000-175,000 population:			
Brockton	91,008	84	92.3
Cambridge	96,292	13	13.5
Fall River	89,276	55	61.6
Lowell	106,449	26	24.4
Lynn	83,464	38	45.5
New Bedford	94,835	58	61.2
Newton	90,506	1	1.1
Quincy	87,018	14	16.1
Somerville	78,112	22	28.2
Springfield	150,414	90	59.8
Worcester	169,091	79	46.7
Group 2 Total:			
	1,136,465	*480*	*42.2*
Group 3: Towns 50,000-75,000 population:			
Brookline	60,639	3	4.9
Chicopee	53,003	10	18.9
Framingham	66,544	4	6.0
Haverhill	57,186	15	26.2
Lawrence	70,325	93	132.2
Malden	53,703	7	13.0
Medford	57,983	14	24.1
Peabody	50,979	3	5.9
Plymouth	51,103	6	11.7
Taunton	54,297	15	27.6
Waltham	59,165	9	15.2
Weymouth	53,670	9	16.8
Group 3 Total:			
	688,607	*188*	*27.3*
Group 4: Towns 25,000-50,000 population:			
Agawam	29,457	2	6.8
Amherst	40,827	1	2.4
Andover	31,857	2	6.3
Arlington	43,066	4	9.3
Attleboro	40,412	7	17.3
Barnstable	46,461	2	4.3
Belmont	25,787	1	3.9
Beverly	40,476	5	12.4
Billerica	38,304	1	2.6
Braintree	34,278	4	11.7
Bridgewater	25,680	5	19.5
Burlington	25,208	1	4.0
Chelmsford	35,093	0	--
Chelsea	28,747	46	160.0
Danvers	25,758	2	7.8
Dartmouth	31,278	1	3.2
Dracut	28,527	0	--
Everett	36,866	21	57.0
Falmouth	29,186	7	24.0
Fitchburg	40,032	14	35.0
Franklin	28,892	0	--
Gloucester	29,456	5	17.0
Holyoke	41,081	41	99.8
Leominster	41,875	3	7.2
Lexington	31,751	0	--
Marlborough	33,980	5	14.7
Melrose	26,598	3	11.3
Methuen	42,050	10	23.8
Milton	27,309	0	--
Natick	31,940	1	3.1
Needham	27,851	0	--
N. Andover	26,295	1	3.8
continued (Group 4):			
N. Attleboro	26,491	2	7.5
Northampton	29,816	0	--
Norwood	28,878	1	3.5
Pittsfield	46,691	11	23.6
Randolph	32,212	5	15.5
Revere	39,987	19	47.5
Salem	40,210	9	22.4
Saugus	25,644	2	7.8
Shrewsbury	29,053	2	6.9
Stoughton	29,034	2	6.9
Tewksbury	30,268	1	3.3
Watertown	31,731	4	12.6
Wellesley	28,734	1	3.5
W. Springfield	28,854	5	17.3
Westfield	40,868	3	7.3
Woburn	36,965	1	2.7
Group 4 Total:			
	1,617,015	264	*16.3*
Group 5: Towns under 25,000 population:*			
Group 5 Total:			
	2,285,300	*159*	*7.0*
Massachusetts:			
Statewide Total:			
	6,291,263	*1662*	*26.4*

*Towns under 25,000 population are not separately listed because low case incidence and small population result in unstable rates. The Massachusetts total includes cases with unknown city (n=89).

Weapon-Related Injury Surveillance System
Massachusetts Department of Public Health
250 Washington Street, 6th Floor
Boston, MA 02108
617-624-5600

BUREAU OF HEALTH STATISTICS, RESEARCH & EVALUATION
Daniel Friedman, Assistant Commissioner

INJURY SURVEILLANCE PROGRAM
Victoria Ozonoff, Director

PROGRAM STAFF:
Elizabeth Castagneto, Research Associate
Patrice Cummins, Epidemiologist
Beth Hume, Data Manager/Analyst
Laurie Jannelli, WRISS Site Coordinator
Cheng Mao, Epidemiologist
Maureen Mata, Site Coordinator
Bridget Nestor, Administrative Support

Additional support provided by the
BUREAU OF FAMILY AND COMMUNITY HEALTH

BOSTON MA JUN 26'01 PB METER 7091109 U.S. POSTAGE 034

Leonard Adams
Government Documents
W.E.B. Du Bois Library
University of Massachusetts
Amherst, MA 01003

GOVERNMENT DOCUMENTS COLLECTION
JUN 28 2001
University of Massachusetts
Depository Copy